UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,863	02/24/2004	Johan van de Groenendaal	063170.6774 (20000213-CON	3676

5073 7590 01/24/2007

BAKER BOTTS L.L.P.
2001 ROSS AVENUE
SUITE 600
DALLAS, TX 75201-2980

EXAMINER	
PHAM, MICHAEL	
ART UNIT	**PAPER NUMBER**
2167	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	01/24/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/24/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

glenda.orrantia@hotmail.com
mike.furr@bakerbotts.com
ptomail1@bakerbotts.com

Office Action Summary	Application No.	Applicant(s)	
	10/786,863	GROENENDAAL ET AL.	
	Examiner	Art Unit	
	Michael D. Pham	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Specification

1. Prior objection to specification corresponding to the typo for modeler is withdrawn.

Drawings

2. Prior objection to figure 5 and 6 for not disclosing the elements drawn in the specifications have been withdrawn.

Claim Objections

3. Prior objection to claim 9 for containing a typo for the word modeler is withdrawn.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 10 and 14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Signals are not considered to fall within one of the four statutory categories of invention. Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. [illegible] (15 How.) at 112-14.

6. Claims 1-9 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-9 are directed to an apparatus where all of the elements would reasonably be interpreted by one of ordinary skill in light of the disclosure as software, such that the apparatus is software per se. Claims 1-9 do not provide the necessary hardware for the claimed apparatus and article (i.e. both memory for storage and processor for execution in order to realize the functionality). The claimed relational interface, relational mapper, protocol transaction handler are all composed of software. The claimed apparatus therefore merely claims software.

7. Prior rejection to claims 1-14 for not yielding a tangible result is withdrawn.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6226649 by Bodamer et. al. (hereafter Bodamer) further in view of U.S. Patent 6122639 by Babu et. al. (hereafter Babu).

Claim 1:

Bodamer discloses,

an apparatus for network management in a heterogeneous environment, comprising:

a relational interface adapted to receive a relational query from a software application requesting management information from a specified ~~information source~~ network device [Col. 15 lines 5-15, local server receives an SQL statement. Determines whether the client SQL statement includes a reference to a foreign database system.];

a relational mapper adapted to translate the relational query received through the relational interface from the software application, to native protocol messages according to an access protocol associated with the network device [col. 15 lines 17-27, if the local server determines the client statement includes a reference to a foreign database system, submits the client statement to heterogeneous services. The client statement is intercepted and mapped onto the generic API to the agent corresponding to the referenced foreign database system.]; and

a protocol transaction handler adapted to handle the native protocol messages as a transaction with the network device, and return a result of the transaction to the software application [Col. 16 lines 52-57, agent process extracts the data from the foreign database system. Col. 5 lines 5-18, able to receive data from the foreign database server.].

However Bodamer does not explicitly disclose **network management information.** Hence Bodamer does not explicitly disclose **a relational interface adapted to receive a relational query from a software application requesting network management information from a specified ~~information source~~ network device** alone.

On the other hand, Babu is directed to computer networks, and relates specifically to collecting, detecting changes, reporting on, and **managing network device information** (col. 1 lines 5-10). Babu discloses col. 7 lines 17-28, that the database 40 is a relational database system or an object-relational database, such as a Sybase database server and related components. Operation of the collection engine is initiated in state 1 by supplying a device name 14, and other information with which the collection engine can locate a device such as SNMP community strings to the collection engine. For example, in one embodiment, an application program calls the collection engine using a function call that request the collection engine to collect data from a particular network device, and supplies a device name that identifies the network device.

Both Bodamer and Babu are directed to heterogeneous systems. It would have been obvious to one of ordinary skill in the art to have modified Bodamer to have included network management information, based on the disclosure of Babu. Bodamer is directed to a more broader use of foreign databases. Whereas, Babu is more specific and retrieves network management information on a specified device. One of ordinary skill in the art would have been motivated to combine Bodamer and Babu for the purpose of monitoring network devices in order to maintain network changes, characteristics, etc. Thereby allowing easier management of network devices in situations that would require network administration.

Claim 2:

Bodamer and Babu disclose,

the apparatus of claim 1, wherein the relational mapper includes a relational model of the ~~information source~~ network device [Bodamer Col. 1 lines 55-58, database systems consist of

relational models. Col. 2 lines 16-25, maps the data representation and functionality of one data source onto another data source. Col. 8 lines 22-40,Translation of relational data includes equivalent formats presented in order to translate foreign and local server.].

Claim 3:

Bodamer and Babu disclose,

the apparatus of claim 1, wherein the relational mapper is adapted to translate a query to plural messages corresponding to plural access protocols [Bodamer Col. 3 lines 3-7, plurality of operations that need to be performed to execute the client statement, sending the request to an agent in communication with the foreign database to perform at least one of said operations.].

Claim 4:

Bodamer and Babu disclose,

the apparatus of claim 1, wherein the relational mapper is expandable to receive queries directed to additional ~~information source~~ network device which use other protocols different from said access protocol, transparent to said software application [Bodamer col. 2 lines 45-51, able to utilize other foreign databases.].

Claim 5:

Bodamer and Babu discloses,

the apparatus of claim 1, wherein the collection of information of the ~~information source~~ network device is viewed as a relational database [Bodamer Col. 16 lines 52-57, agent process

extracts the data from the foreign database system. Bodamer Col. 5 lines 5-18, able to receive data from the foreign database server. The].

Claim 6:

Bodamer and Babu discloses,

the apparatus of claim 1, wherein the relational query is independent of management and/or access protocols [Bodamer Col. 15 lines 5-15, local server receives an SQL statement. Determines whether the client SQL statement includes a reference to a foreign database system.]

Claim 7:

Bodamer and Babu disclose,

the apparatus of claim 1, wherein the translation of the relational query to native protocol messages is an abstraction transparent to said software application [Bodamer Col. 8 lines 22-40,Translation of relational data includes equivalent formats presented in order to translate foreign and local server].

Claim 8:

Bodamer and Babu disclose,

the apparatus of claim 1, wherein a form of the relational query does not depend on the access protocol to which the relational query is to be translated [Bodamer col. 2 lines 45-50, provides transparent integration of native and non-native databases].

Claim 9:

Bodamer discloses,

a relational modeler apparatus adapted

to translate a relational query from a software application requesting management information from a specified ~~information source~~ network device [Bodamer Col. 15 lines 5-15, local server receives an SQL statement. Determines whether the client SQL statement includes a reference to a foreign database system. Bodamer col. 15 lines 17-27, if the local server determines the client statement includes a reference to a foreign database system, submits the client statement to heterogeneous services. The client statement is intercepted and mapped onto the generic API to the agent corresponding to the referenced foreign database system],

to native protocol messages according to an access protocol associated with the information source, wherein said native protocol messages is handled as a transaction with the ~~information source~~ network device [Bodamer Col. 16 lines 52-57, agent process extracts the data from the foreign database system. Col. 5 lines 5-18, able to receive data from the foreign database server.].

However Bodamer does not explicitly disclose **network management information.** Hence Bodamer does not explicitly disclose **to translate a relational query from a software application requesting network management information from a specified ~~information source~~ network device** alone.

On the other hand, Babu is directed to computer networks, and relates specifically to collecting, detecting changes, reporting on, and managing network device information (col. 1

lines 5-10). Babu discloses col. 7 lines 17-28, that the database 40 is a relational database system or an object-relational database, such as a Sybase database server and related components. Operation of the collection engine is initiated in state 1 by supplying a device name 14, and other information with which the collection engine can locate a device such as SNMP community strings to the collection engine. For example, in one embodiment, an application program calls the collection engine using a function call that request the collection engine to collect data from a particular network device, and supplies a device name that identifies the network device.

Both Bodamer and Babu are directed to heterogeneous systems. It would have been obvious to one of ordinary skill in the art to have modified Bodamer to have included **network management information**, based on the disclosure of Babu. Bodamer is directed to a more broader use of foreign databases. Whereas, Babu is more specific and retrieves network management information on a specified device. One of ordinary skill in the art would have been motivated to combine Bodamer and Babu for the purpose of monitoring network devices in order to maintain network changes, characteristics, etc. Thereby allowing easier management of network devices in situations that would require network administration.

Claim 10:

Bodamer discloses,

a computer data signal embodied in a transmission medium, for network management in a heterogeneous environment, comprising:

a first segment including relational interface code to receive a relational query from a software application requesting management information from a specified ~~information~~

~~source~~ **network device** [Bodamer Col. 15 lines 5-15, local server receives an SQL statement. Determines whether the client SQL statement includes a reference to a foreign database system.];

a second segment including relational mapper code to translate the relational query received from the software application, to native protocol messages according to an access protocol associated with the ~~information source~~ network device [Bodamer col. 15 lines 17-27, if the local server determines the client statement includes a reference to a foreign database system, submits the client statement to heterogeneous services. The client statement is intercepted and mapped onto the generic API to the agent corresponding to the referenced foreign database system.]; and

a third segment including protocol transaction handler code to handle the native protocol messages as a transaction with the ~~information source~~ network device, and return a result of the transaction to the software application[Bodamer Col. 16 lines 52-57, agent process extracts the data from the foreign database system. Bodamer Col. 5 lines 5-18, able to receive data from the foreign database server.].

However Bodamer does not explicitly disclose **network management information.** Hence Bodamer does not explicitly disclose **a first segment including relational interface code to receive a relational query from a software application requesting network management information from a specified ~~information source~~ network device** alone.

On the other hand, Babu is directed to computer networks, and relates specifically to collecting, detecting changes, reporting on, and managing network device information (col. 1 lines 5-10). Babu discloses col. 7 lines 17-28, that the database 40 is a relational database system

or an object-relational database, such as a Sybase database server and related components. Operation of the collection engine is initiated in state 1 by supplying a device name 14, and other information with which the collection engine can locate a device such as SNMP community strings to the collection engine. For example, in one embodiment, an application program calls the collection engine using a function call that request the collection engine to collect data from a particular network device, and supplies a device name that identifies the network device.

Both Bodamer and Babu are directed to heterogeneous systems. It would have been obvious to one of ordinary skill in the art to have modified Bodamer to have included **network management information**, based on the disclosure of Babu. Bodamer is directed to a more broader use of foreign databases. Whereas, Babu is more specific and retrieves network management information on a specified device. One of ordinary skill in the art would have been motivated to combine Bodamer and Babu for the purpose of monitoring network devices in order to maintain network changes, characteristics, etc. Thereby allowing easier management of network devices in situations that would require network administration.

Claim 11:

Bodamer discloses,

a method for network management in a heterogeneous environment, comprising:

receiving a relational query from a software application requesting management information from a specified ~~information source~~ network device [Bodamer Col. 15 lines 5-

15, local server receives an SQL statement. Determines whether the client SQL statement includes a reference to a foreign database system.];

translating the relational query received from the software application, to native protocol messages according to an access protocol associated with the ~~information source~~ network device [Bodamer col. 15 lines 17-27, if the local server determines the client statement includes a reference to a foreign database system, submits the client statement to heterogeneous services. The client statement is intercepted and mapped onto the generic API to the agent corresponding to the referenced foreign database system.]; and

handling the native protocol messages as a transaction with the ~~information source~~ network device and returning a result of the transaction to the software application[Bodamer Col. 16 lines 52-57, agent process extracts the data from the foreign database system. Col. 5 lines 5-18, able to receive data from the foreign database server.].

However Bodamer does not explicitly disclose **network management information.** Hence Bodamer does not explicitly disclose **receiving a relational query from a software application requesting network management information from a specified ~~information source~~ network device** alone.

On the other hand, Babu is directed to computer networks, and relates specifically to collecting, detecting changes, reporting on, and managing network device information (col. 1 lines 5-10). Babu discloses col. 7 lines 17-28, that the database 40 is a relational database system or an object-relational database, such as a Sybase database server and related components. Operation of the collection engine is initiated in state 1 by supplying a device name 14, and other

information with which the collection engine can locate a device such as SNMP community strings to the collection engine. For example, in one embodiment, an application program calls the collection engine using a function call that request the collection engine to collect data from a particular network device, and supplies a device name that identifies the network device.
Both Bodamer and Babu are directed to heterogeneous systems. It would have been obvious to one of ordinary skill in the art to have modified Bodamer to have included **network management information**, based on the disclosure of Babu. Bodamer is directed to a more broader use of foreign databases. Whereas, Babu is more specific and retrieves network management information on a specified device. One of ordinary skill in the art would have been motivated to combine Bodamer and Babu for the purpose of monitoring network devices in order to maintain network changes, characteristics, etc. Thereby allowing easier management of network devices in situations that would require network administration.

Claim 12:

Bodamer and Babu disclose,

a computer system, comprising:

a processor [Bodamer figure 2, element 102 a processor]; and

a program storage device readable by the computer system, tangibly embodying a program of instructions executable by the processor to perform the method claimed in claim 11 [Bodamer Figure 2, elements 104 and 107, main memory and storage device. Claim 12 is further rejected by similar rational as claim 11 by Bodamer and Babu.].

Claim 13:

Bodamer and Babu disclose,

a program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform the method claimed in claim 11

[Bodamer Figure 2, elements 104 and 107, main memory and storage device. Claim 13 is further rejected by similar rational as claim 11 by Bodamer and Babu].

Claim 14:

Bodamer and Babu disclose,

a computer data signal transmitted in one or more segments in a transmission medium which embodies instructions executable by a computer to perform the method claimed in claim 11[Bodamer, col. 4 lines 10-51, instructions executable by a processor. Claim 14 is further rejected by similar rational as claim 11 by Bodamer and Babu.].

Response to Arguments

10. Applicant's arguments with respect to claim 1-14 have been considered but are moot in view of the new ground(s) of rejection. Applicant's asserted the following below (lettered):

A. In regards to 35 U.S.C. 101 rejection against claims 10-14.

MPEP 2106.01 states that **When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of**

the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)(discussing patentable weight of data structure limitations in the context of a statutory claim to a data structure stored on a computer readable medium that increases computer efficiency) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory).

The signal embodied on a transmission medium referred to herein the claims is not considered to be the same as a computer-readable memory, as applicant's attempt to suggest. Specifications page 10 lines 25- col. 11 line 1 state "each tool may be a program of instructions stored on a machine readable medium **and/or transmitted via a computer network or another transmission medium.**" The transmission medium is ill defined, and could be construed to be a mere wire. In this regard, a transmission medium cannot be said to be a computer readable storage medium or computer-readable memory.

B. In regards to 35 U.S.C. 101 rejection against claims 1-9.

Applicant's have yet to define where exactly in the specifications a relational interface, relational mapper, and the protocol transaction handler is hardware. One of ordinary skill appears to be able to ascertain from the specifications that those 3 components named are essentially software. See pages 20-21. Therefore the claimed apparatus appears to be

completely composed of software. Claim 2-8 do not further limit the apparatus to any type of hardware.

C. As to applicant's arguments stating that Bodamer does not disclose each of the limitations because Bodamer does not disclose "network management information". In this regard, the argument was persuasive. However, a new search was conducted and a new rejection has been made. In summary Bodamer in combination with Babu disclose each of the recited limitations because Babu discloses network management information.

Conclusion

11. The prior art made of record listed on PTO-892 and not relied, if any, upon is considered pertinent to applicant's disclosure.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael D. Pham whose telephone number is (571)272-3924. The examiner can normally be reached on Monday - Friday 9am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Pham
Art Unit 2167
Examiner

John Cottingham
Art Unit 2167
Supervisor

Cam Y Truong
Art Unit 2162
Primary Examiner

cyt

JOHN COTTINGHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100